

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): A gallium nitride-based semiconductor device having a p-type layer that is a gallium nitride (GaN) compound semiconductor layer containing a p-type impurity and exhibiting p-type conduction, wherein the p-type layer comprises a top portion and an inner portion located under the top portion, wherein the inner portion contains the p-type impurity and, in combination therewith, hydrogen, wherein the inner portion has a hydrogen concentration of  $1 \times 10^{18} \text{ cm}^{-3}$  or more and an impurity concentration of  $1 \times 10^{18} \text{ cm}^{-3}$  to  $1 \times 10^{21} \text{ cm}^{-3}$  and wherein the top portion includes a region containing a Group III element and a Group V element at a non-stoichiometric atomic ratio, and wherein the top portion has a hydrogen concentration lower than that of the inner portion.
2. (original) A gallium nitride-based semiconductor device according to claim 1, wherein the inner portion of the p-type layer has a percent thickness of 40% to 99.9% with respect to a thickness of the p-type layer.
3. (canceled).
4. (previously presented): A gallium nitride-based semiconductor device according to claim 1, wherein the inner portion has a hydrogen concentration that is equal to, or lower than, an impurity concentration.

5. (previously presented): A gallium nitride-based semiconductor device according to claim 1, wherein the region containing a Group III element and a Group V element at a non-stoichiometric atomic ratio has a thickness of 1 to 10 nm from the top surface of the p-type layer in a depth direction.

6. (previously presented): A gallium nitride-based semiconductor device according to claim 1, wherein the top portion of the p-type layer has a surface having Ga deposited thereon.

7. (previously presented): A gallium nitride-based semiconductor device according to claim 1, wherein the p-type layer has a surface having joined thereto a gallium nitride semiconductor material containing a Group III element and a Group V element at a non-stoichiometric atomic ratio.

8. (original) A gallium nitride-based semiconductor device according to claim 7, wherein the gallium nitride semiconductor material is boron phosphide (BP) having a non-stoichiometric atomic ratio.